



# **Avaya Media Processing Server**

**Release 4.1**  
**Release Notes**

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## Introduction

The Avaya Media Processing Server (MPS) 4.1 release offers significant improvements over MPS 3.5.

The following are the main changes:

- MPS 4.1 runs on more powerful late-model Solaris and Windows servers.
- MPS 4.1 runs on the Windows 2008 R2 64-bit operating system.
- MPS 4.1 provides improved network security by implementing OS hardening of its network interfaces and blocking unwanted network traffic.
- MPS 4.1 provides improved data security by using Secure Sockets Layer (SSL) and Secure Shell (SSH) encrypted connections for many of its server-to-server interfaces.
- MPS 4.1 supports Java 7, while retaining support for Java 6.
- MPS Speech Server adds support for MRCPv1-based Nuance 10, Vocalizer 5.7 and Loquendo 7.2 speech engines running on Red Hat Enterprise Linux 6.2, and supports newer releases of other third-party speech engines.
- MPS4.1 supports MPS Speech Server MRCPv1 client on Solaris 10.
- MPS Developer provides a resource and a toolkit for accessing external Web Services using SOAP/WSDL standards.
- MPS AP can play WAV files from the local file system or a remote server using a URL, without using an Internet Audio Server resource.
- MPS 4.1 improves logging capabilities in many components.
- MPS 4.1 simplifies command-line administration and logging commands.

### Important MPS 4.1 Licensing Requirement

MPS 4.1 does not support license keys from previous MPS releases. Avaya provides MPS 4.1 license keys with every new MPS 4.1 system and with MPS 4.1 software upgrades. If MPS 4.1 license keys are not delivered with your MPS 4.1 order, contact Avaya support for new license keys. For details on the licensing changes, see [MPS 4.1 Licensing Support](#).

The following sections document MPS 4.1 installation requirements, new features and other improvements.

## Installation Requirements

This section provides the requirements for MPS 4.1 installation, and for pre-installed systems.

## Hardware Specifications

MPS 4.1 is supported on Sun/SPARC servers and on Microsoft Windows servers. Some newer server models are supported, while support for some older models is discontinued. The change in hardware support is the result of a lack of availability of replacement parts such as memory and disk drives.

Sun/SPARC server models:

Sun/SPARC models (Solaris 10)	MPS 4.1 Supported?
V210	No *
V240	No *
V210 RoHS	No *
V240 RoHS	No *
Netra 240	Yes
Netra 240 RoHS	Yes
V215	Yes
V245	Yes
T2000	Yes
T5120 (AC)	Yes
T5120 (DC)	Yes
T5220	Yes
Netra T4-1 (AC)	Yes
Netra T4-1 (DC)	Yes
<p>* Servers marked 'No' (not supported) were supported for MPS 3.5, but the purchase of a new server is required for an upgrade to MPS 4.1. Support for these older server models is discontinued because of a lack of available replacement parts.</p>	

Windows server models:

<b>Windows server models</b>	<b>MPS 4.1 Supported?</b>
X335	No *
X336	No *
DL360	No *
X336 RoHS	No *
DL360 G4p RoHS	No *
X3550	Yes
X3550-H	Yes
DL360 G5	Yes
DL360 G5-H	Yes
DL360 G7	Yes
DL360 Gen 8	Yes **
X3550 M4	Yes **

\* Servers marked 'No' (not supported) were supported for MPS 3.5, but the purchase of a new server is required for an upgrade to MPS 4.1. Support for these older server models is discontinued for lack of available replacement parts.

\*\* New servers running Windows 2008 R2 only (not Windows 2003).

MPS 4.1 runs only on Solaris and Windows. However, the MPS 4.1 Speech Server client on Solaris or Windows can use MRCPv1 to communicate with 3<sup>rd</sup>-party speech-processing engines hosted on Red Hat Enterprise Linux 6.2 servers or on Windows Servers (Nuance Speech Server with Nuance 10/Vocalizer 5.7; or Loquendo 7.2 Speech Server).

MPS supports the following server models using MRCPv1 speech engines hosted on Red Hat Enterprise Linux 6.2:

<b>Red Hat Enterprise Linux Servers (Nuance &amp; Loquendo MRCPv1 Speech Servers)</b>
X3550
X3550-H
DL360 G5
DL360 G5-H
DL360 G7
DL360 Gen 8
X3550 M4

## Software Requirements

This section provides the software requirements.

### Operating System Requirements

**Table 1 - Operating Systems**

Server Type		Operating System
MPS Application Processor		<ul style="list-style-type: none"> <li>• Solaris 10</li> <li>• Microsoft Windows 2008 R2 (64-bit)</li> <li>• Microsoft Windows 2003 Server</li> <li>• Microsoft Windows 2003 R2 ***</li> </ul>
MPS Management Workstation and MPS Developer Tools		<ul style="list-style-type: none"> <li>• Solaris 10</li> <li>• Microsoft Windows 2008 R2 (64-bit)</li> <li>• Microsoft Windows 2003 Server</li> <li>• Microsoft Windows 2003 R2 ***</li> <li>• Microsoft Windows 7 ***</li> <li>• Microsoft Windows XP ***</li> </ul>
CCSS Signaling System 7 Server (CCSS SS7 Server)		<ul style="list-style-type: none"> <li>• Solaris 10</li> </ul>
CCSS Session Initiation Protocol Server (CCSS SIP Server)		<ul style="list-style-type: none"> <li>• Solaris 10</li> <li>• Microsoft Windows 2008 R2 (64-bit)</li> <li>• Microsoft Windows 2003 Server</li> <li>• Microsoft Windows 2003 R2 ***</li> </ul>
CCTIVR Server		<ul style="list-style-type: none"> <li>• Microsoft Windows 2008 R2 (64-bit)</li> <li>• Microsoft Windows 2003 Server</li> <li>• Microsoft Windows 2003 R2 ***</li> </ul>
Speech Server	MPS API-based Client	<ul style="list-style-type: none"> <li>• Microsoft Windows 2008 R2 (64-bit)</li> <li>• Microsoft Windows 2003 Server</li> <li>• Microsoft Windows 2003 R2 ***</li> </ul>

Server Type		Operating System
	API-based Speech Server **	<ul style="list-style-type: none"> <li>• Microsoft Windows 2008 R2 (64-bit)</li> <li>• Microsoft Windows 2003 Server</li> <li>• Microsoft Windows 2003 R2 ***</li> </ul>
	MPS MRCPv1 Client *	<ul style="list-style-type: none"> <li>• Solaris 10</li> <li>• Microsoft Windows 2008 R2 (64-bit)</li> <li>• Microsoft Windows 2003 Server</li> <li>• Microsoft Windows 2003 R2 ***</li> </ul>
	MRCPv1 Speech Server **	<ul style="list-style-type: none"> <li>• Microsoft Windows 2008 R2 (64-bit)</li> <li>• Microsoft Windows 2003 Server</li> <li>• Microsoft Windows 2003 R2 ***</li> <li>• Red Hat Enterprise Linux 6.2</li> </ul>

\* On Windows and Solaris 10 operating systems the MPS 4.1 MRCPv1 client can be installed either alone or with an MPS AP co-resident.

\*\* Speech server vendor software support varies by software release and operating system. Nuance Speech Server 6.2, Nuance10 Recognizer and Vocalizer 5.7 only support Windows 2008 R2. For more details see the following documents available from <http://support.avaya.com>:

*Avaya MPS Speech Server Nuance 10 and Vocalizer 5.7 MRCPv1 Supplement*

*Avaya MPS Speech Server Loquendo 7 MRCPv1 Supplement*

*Migrating Avaya Media Processing Server from 3.x to 4.1 (NN44100-413)*

\*\*\* Only available in customer-supplied Platform Vendor Independence (PVI) configurations.

## Solaris 10 Patch Level Requirements

The minimum Solaris 10 patch levels for MPS 4.1 are carried forward from MPS 3.5:

- Solaris 10 patch 137147-04 or higher



- Solaris 10 patch 119963-12 or higher (required for systems that use VoiceXML Interpreter)

For Solaris 10 systems being upgraded to MPS 4.1 from MPS 3.x, Avaya recommends that you apply patch 147440-25 (Solaris 10 OS Patch Bundle R27 Kernel Patch) prior to performing the upgrade.

## Windows Patch Level Requirements

The minimum Windows patch levels for MPS 4.1 are:

- Service Pack 2 on Windows 2003 systems.
- Service Pack 1 on Windows 2008 R2 systems.

## MPS 4.1 General Availability (GA) Release Information

### Solaris

The GA release for Solaris includes the base Solaris packages with cut date 20130703 (July 3, 2013), and the following additional patches:

globl4.1.0.1  
ccss7.1.0.1  
view4.1.0.1  
ws4.1.0.1

### Windows

The Windows GA release, version 4.1.0.041 20130703, was created July 3, 2013. Avaya\_SelfService\_4.1.0.041-20130703.exe installs the MPS base packages. The GA release for Windows also includes the following additional patches:

globl4.1.0.1  
ccss7.1.0.1  
view4.1.0.1  
ws4.1.0.1  
pdp4.1.0.1

## MPS 4.1 Installation

### Avaya Media Processing Server 4.1 Packages

The MPS 4.1 software release can be installed on an MPS Application Processor (MPS AP), a Common Channel Signaling Server (CCSS) SS7 or SIP server, MPS Speech Server, MPS Communications Control Toolkit Interactive Voice Response (CCTIVR) server, and all MPS Tools workstations.

The following documents detail MPS 4.1 installation on Solaris and Windows:

*Installing Avaya Media Processing Server Software on the Solaris Platform (NN44100-303)*

*Installing Avaya Media Processing Server Software on the Windows Platform (NN44100-304)*

The following document details upgrading an MPS 3.x system to MPS 4.1, and verifying the upgrade:

*Migrating Avaya Media Processing Server from 3.x to 4.1 (NN44100-413)*

### **Avaya Speech Server Software**

Speech Server resources contain products from third-party vendors. Each speech resource requires that you install the following software:

- **Avaya Software:** This includes Speech Server resource processing software installed by the MPS 4.1 installer. For information on how to install MPS 4.1 software on a Speech Server, see the *Avaya Media Processing Server Speech Server Installation Guide (NN44100-305)*.
- **Vendor Software:** This contains the speech recognition or synthesis resource processing software. Vendor-specific patches are installed with the vendor software on the Speech Server. For more information, refer to the vendor's documentation.
- **Apache Web Server:** For information about how to install Apache Web Server, see the *Avaya Media Processing Server Speech Server Installation Guide (NN44100-305)*.

## **MPS 3.5 SCE Installation**

MPS 4.1 does not include a new release of Service Creation Environment (SCE). MPS 4.1 retains compatibility with MPS 3.5 SCE. MPS 3.5 SCE cannot be co-resident with MPS 4.1 software. MPS 3.5 SCE software can be installed using the procedures described in the *Avaya Service Creation Environment Installation Guide (NN44300-303)*.

## Interoperability

MPS 4.1 maintains the capability to interoperate with other Avaya products and third-party products. As new releases of the products with which MPS interworks have been made available, MPS 4.1 has been verified to work with many of those new releases.

Solutions involving MPS interworking with other platforms come in many possible configurations. Avaya provides a matrix, in Microsoft Excel spreadsheet format, detailing the products and releases with which MPS 4.1 is interoperable. Consult the spreadsheet for details of MPS 4.1 interoperability with other platforms, and confirm support for any required configurations with an Avaya sales representative.

The following sections describe interoperability of MPS 4.1 components with other product releases.

## CCTIVR

For CCTIVR with Communications Server 1000 (CS1000) and Avaya Aura Contact Center (AACC) for TDM-based agents using line-side T1/E1 protocols, MPS 4.1 is interoperable with:

- Contact Center 7.0
- AACC 6.2
- AACC 6.3
- CS1000 7.0
- CS1000 7.5
- CS1000 7.6

For CCTIVR with Avaya Aura Communications Manager, Avaya Aura Session Manager and Avaya Aura Enablement Services, MPS 4.1 is interoperable with:

- Avaya Aura Communication Manager 6.2
- Avaya Aura Session Manager 6.3
- Avaya Aura Enablement Server 6.2

## Speech Server Third-Party Speech Engines

MPS 4.1 Speech Server client software supports the following third-party speech engines:

- Loquendo 7.2
- Nuance 9.0
- Nuance 10.2
- Nuance Speech Server 6.2

- RealSpeak 4.5
- Vocalizer 5.0
- Vocalizer 5.7
- Verifier 4.1.2
- VocalPassword 8.3

For details about the operating systems on which these applications run and the speech server interfaces used, see the table of [Supported Speech Engine Releases](#) and supporting MPS Speech Server documentation.

## Databases

MPS 4.1 Relational Database (RDB) supports native software drivers from many database vendors, and DataDirect 7.0 ODBC drivers. Use of native drivers or ODBC drivers varies across database releases and operating systems. Consult the interoperability matrix and MPS RDB documentation for details.

MPS supports the following database software releases on Solaris:

- MySQL 5.1.8, Enterprise 5.x
- Oracle 9i, 10g, 11g, 11g R2
- Sybase 10.x, 11.x, 12.1, 15.0, 15.7
- Informix 11.7
- DB2 7.x, 8.1, 9.21, 9.7, 10.1

MPS supports the following database software releases on Windows:

- MySQL 5.1.8, Enterprise 5.x
- Oracle 9i, 10g, 11g, 11g R2
- Sybase 10.x, 11.x, 12.1, 15.0, 15.7
- MS SQL 2000, 2005, 2008, 2012
- UNIDATA 3.01.04.7036

## JAVA

MPS 4.1 supports Java 6 and Java 7.

## JBOSS

MPS 4.1 supports JBOSS 4.2.1.

## OpenSSL

MPS 4.1 supports OpenSSL 0.9.8x.

## Other Interoperability

- MPS 3.5 SCE
- Avaya Aura Orchestration Designer 6.0 SP2
- Genesys T-Server 8.1
- Cisco ICM GED 125 Specification 3.0d

## New Features in MPS 4.1

### Speech Server

#### Nuance Speech Server 6.2 MRCPv1

Nuance Speech Server 6.2 is comprised of Nuance 10 Recognizer (for speech recognition) and Vocalizer 5.7 (for text-to-speech processing). The MPS 4.1 Speech Server client supports Nuance 10 and Vocalizer 5.7 using only the MRCPv1 protocol on Solaris 10, Windows 2003, and Windows 2008 R2. You can install Nuance Speech Server, Nuance 10, and Vocalizer 5.7 on Windows 2008 R2 or Red Hat Enterprise Linux 6.2.

For MPS installations that use the Nuance APIs, support for Nuance 9, RealSpeak 4.5, and Vocalizer 5.0 in API mode is retained in MPS 4.1. You can re-host Nuance 9 and Vocalizer 5.0 speech engines on Windows 2008 R2 servers, or continue to host them on Windows 2003. RealSpeak 4.5 is supported only on Windows 2003.

For a list of supported speech engine vendor software releases, see the table of [Supported Speech Engine Releases](#).

#### Loquendo 7.2 MRCPv1

The MPS 4.1 Speech Server client interfaces with the Loquendo 7.2 speech engine for speech recognition and text-to-speech capabilities, using the MRCPv1 protocol. You can install Loquendo 7.2 on Windows 2003 with Service Pack2, Windows 2008 R2, or Red Hat Enterprise Linux 6.2.

For a list of supported speech engine vendor software releases, see the table of [Supported Speech Engine Releases](#).

#### VocalPassword 8.3

Nuance VocalPassword 8.3 is being introduced with MPS 4.1 as an upgrade from Verifier 4.1. The VocalPassword API uses an HTTP / SOAP interface. If you upgrade to VocalPassword you will have to modify your applications to comply with the API before running them. If your MPS installation uses Nuance Verifier 4.1.2, you can upgrade to MPS 4.1 and continue to use Nuance Verifier 4.1.2 without modifying applications.

For a list of supported speech engine vendor software releases, see the table of [Supported Speech Engine Releases](#).

## Co-resident MRCPv1 Client and Application Processor

In MPS 4.1, the MRCPv1 client can be co-resident with the MPS Application processor on Windows servers and Solaris T-Series servers. The MRCPv1 client software is not supported on Linux, and it cannot be co-resident with an MRCPv1 speech engine on Windows. When using an MRCPv1 speech engine, if you install the MPS MRCPv1 client co-resident with the MPS AP you do not need a separate server for the MPS MRCPv1 client. Standalone installation of the MPS MRCPv1 client on a separate Solaris T-Series or Windows server is also supported. The MRCPv1 client is not supported on V-Series Solaris servers.

The following table lists the operating system support for MPS 4.1 Speech Server client software in both AP co-resident and standalone configurations.

MPS Speech Server, MRCPv1 Client	Solaris 10	Linux	Windows 2003 Std	Windows 2003 R2	Windows 2008 R2 (64-bit)
Standalone Client	S **	N	S	P	S
AP Co-resident Client	S **	N	S	P	S

N = not supported  
 S = can be ordered and shipped from Avaya  
 P = can be configured on customer-supplied servers that pass PVI check

\*\* MRCPv1 Client is supported only on T-Series Solaris servers

## Web Services Support for MPS Developer

The MPS 4.1 Web Services Support feature allows MPS Developer applications to send requests to custom web services and to receive the responses back from them. Web Services Support supplies a toolkit with MPS Developer blocks that allow access to web-based services using data cards and folders. The architecture of the feature uses the MPS Developer resource model to send and receive SOAP (Simple Object Access Protocol) messages to/from the web service, while using data folders to present the web service data inside the application. The programmer uses 'GetWSResource' and

'FreeWSResource' blocks to acquire and release access to a web service resource. The 'WSOperation' block allows the programmer to initiate a web service operation and to receive the result.

Web Services support provides the following features:

- **Web Services Toolkit**  
The MPS Developer blocks for access to web services.
- **Web Services Description Language (WSDL) Type Mappings**  
The specification for defining MPS Developer data card and folders that match a web services description language (WSDL) specification.
- **The wsdl2folder utility**  
The command-line tool that automates the time-consuming process of creating MPS Developer folders to comply with the WSDL for a particular web service.

For a full description of Web Services Support for MPS Developer, see the *Media Processing Server Web Services Resource Guide*.

## Native WAV File Support

MPS 4.1 Application Processor supports playing WAV files natively, without requiring an Audio Server (ausvr) resource.

The following are some of the benefits of native WAV file support:

- Systems do not require a speech server to play WAV files; previous releases required a separate speech server with an Audio Server (ausvr) resource.
- Applications can play WAV files located directly on the MPS application processor.
- Applications can speak WAV files on remote servers using a URL, without an additional audio server resource.

When native WAV file support is not configured the MPS 4.1 software release is fully compatible with the pre-existing applications, configuration files, and features supported on previous releases of the MPS. MPS Developer applications written to use the audio server resource, and all VXML applications, will still use the 'ausvr' resource as in prior releases, unless the system configuration and/or the applications are modified to use native WAV file support.



For a full description of the Native WAV File Support feature, see the *Media Processing Server WAV File Support Without IAS User Guide*.

## Avaya Self Service Optimization Support

Avaya Self Service Optimization is a consulting service that analyzes and maximizes the caller experience. It takes real-time caller experience data (touch-tone and/or automated speech recognition), analyzes it, and provides recommended changes for the self-service solution. Self Service Optimization allows companies not only to see how the self-service channel responds to callers but, more importantly, how callers interact with the self-service application.

Self Services Optimization Support provides the following benefits::

- Validation of the customer experience.
- Identification of potential improvements.
- Implementation of select improvements.  
Repetition of the process for continual improvement.

The capture of the call session data is integrated into the MPS operational software installed and running on the MPS Application Processor. Capture is disabled by default and must be enabled explicitly. MPS call session data capture can be enabled either automatically at MPS startup via configuration file or, while the system is up, manually by operator request. Similarly, call session data capture can be disabled either automatically through the setting of a limit on capture in the configuration file or manually by an operator command.

Self-Service Optimization is fully compatible with the pre-existing applications and configuration files, with all features currently supported on MPS. For a complete description of this feature, see the *Avaya Media Processing Server 3.5 & 4.1 Self Service Optimization User Guide*.

## CCSS SIP

### **SIP Update Method Support**

The SIP protocol stack in the CCSS package has added support for the SIP UPDATE method. See the *Avaya Media Processing Server SIP Features Manual (NN44100-130)* for details.

## Host Protocols

### Cisco ICM GED 125 Spec 3.0d Support

Host protocols support for GeoTel (CISCO ICM) has been expanded to include support for Cisco ICM GED 125 Specification 3.0d. This specification includes some improvements over the previous specification (Cisco ICM GED 125 Specification 2.9a), including support for GeoTel protocol version 6 and support for MicroApplications.

MicroApplications are elementary operations which are executed by a Voice Response Unit under the control of an ICM Router script. These operations include the ability to play individual prompts of various media and to accept DTMF keystroke input from the caller. For MPS 4.1, GeoTel support is enhanced to include the capabilities for MPS Developer applications to send and receive messages defined in the specification for use of MicroApplications.

Use of MicroApplications support is optional. Existing MPS Developer applications for GeoTel that do not take advantage of the MicroApplications support in ICM GED 125 Spec 3.0d will work on MPS 4.1 without any modification. For a full description of the enhancement, see the *Media Processing Server Series GeoTel Features User Manual* (NN44100-102).

## MPS Alternative Host Name Configuration

Alternative host name refers to an MPS system configuration where the system hostname of an MPS node resolves to the IP address of a network interface connected to a customer, public, or external LAN, and the MPS software uses another interface, host name, and IP address for MPS-related communications over the MPS private LAN. This capability does not exist in MPS releases prior to MPS 4.1, which require that the MPS system hostname must resolve to the IP address of the network interface connected to the MPS private LAN.

To give an MPS a system hostname that does not resolve to an IP address on the MPS private LAN, complete the following steps:

- 1) Insert the IP address and hostname(s) for each of the private and public LAN network interfaces on the MPS node into the `/etc/hosts` file on Solaris, or the `%SystemRoot%\System32\drivers\etc\hosts` file on Windows.
- 2) Use the `managempsconfig` utility to insert a 'syshostname' key into the `$MPSHOME/common/etc/mps-system.cfg` file with a value of the host name that resolves to the MPS node's private-LAN network IP address.

3) Set the system hostname for the MPS node to the host name associated with the MPS public LAN address, using operating system-specific procedures.

4) After making these configuration changes, restart the MPS node.

For more information on using Alternative Host Name Configuration, see the *Avaya Media Processing Server Series System Reference Manual* (NN44100-100).

## Tools

### MPS Backup and Restore Scripts

For preserving critical user configuration, applications, and data files through the process of performing a system upgrade, Avaya provides two Perl scripts:

- MPSBackup.pl
- MPSRestore.pl

MPSBackup.pl and required Perl libraries are installed by the MPS 4.1 installer; they can also be installed on MPS 3.0 and MPS 3.5 systems by applying patches to the PERIperl and PERIdist packages. With the MPSBackup.pl script, you can back up user configuration, applications, and data files from an MPS 3.x system or an MPS 4.1 system before performing an upgrade from MPS 3.x to MPS 4.1, or before making changes to an MPS 4.1 system. MPSBackup.pl creates a summary file with the MPS system type and component information called MPSBackup\_HHMMSS\_ddmmmyyyy\_hostname, and a gzip'd tar archive file called MPSBackup\_HHMMSS\_ddmmmyyyy\_hostname.tar.gz.

**Important:** MPSBackup.pl backs up only the most common configuration files. The user must perform manual backups of ISAM database configuration files in `$MPSHOME/PERIase/etc`, perl scripts in `$MPSHOME/PERIdist/dist-bin`, and vocabulary files in `/mmf`.

MPSRestore.pl is installed only by the MPS 4.1 installer. It is not available for MPS 3.0 or MPS 3.5. With the MPSRestore.pl script, you can restore the backed-up configuration, applications, and data files from an MPS 3.x system backup archive (when an MPS 3.x system is being upgraded) or from an MPS 4.1 system backup archive (when an MPS 4.1 system undergoes changes). Copy an MPSBackup archive file onto an MPS 4.1 server and run the MPSRestore.pl script to restore the files in the archive onto the MPS 4.1 system.

The MPS components and component numbers on the MPS 4.1 system where MPSRestore.pl runs must match the components saved in the system backup archive.

See how to use MPSBackup.pl and MPSRestore.pl in *Migrating Avaya Media Processing Server from 3.x to 4.1* (NN44100-413).

## Packaged Third-Party Applications

### Wireshark Network Protocol Analyzer for Windows

The Windows installer for MPS 4.1 places the installer for Wireshark (Wireshark-win32-1.8.x.exe) in the directory:

%MPSHOME%\tool-installers

Wireshark requires that WinPCAP also be installed. The WinPCAP installer (WinPcap\_4\_1\_x.exe) is placed in the same directory as the Wireshark installer. The Wireshark installer includes a version of WinPCAP that can be selected for installation at the time Wireshark is installed, in which case the separate installer for WinPCAP does not need to be run.

Documentation on Wireshark is available at <http://www.wireshark.org/>

Documentation for WinPCAP is available at <http://www.winpcap.org/>

## Updates to Features and Serviceability

The following system features have been updated in this release.

### Speech Vendor Release Updates

The MPS 4.1 Speech Server client supports upgraded software releases of Nuance, Vocalizer, and RealSpeak speech engines, while dropping support for older releases of these speech engines. MPS 3.x installations using Nuance 8.5 API will need to upgrade to Nuance 9.0 to support MPS 4.1, and installations using RealSpeak 4.0 API will need to upgrade to RealSpeak 4.5. Support for VocalPassword 8 is new in MPS 4.1, while support for all versions of IBM WVS is not carried forward from MPS 3.x to MPS 4.1.

#### Supported Speech Engine Releases

Speech Engine	Interface Type	Solaris 10	Linux	Windows 2003 Std	Windows 2003 R2	Windows 2008 R2 (64bit)	Recommended Speech Engine & Interface Upgrade
IBM WVS 5.3	MRCP	N	N	N	N	N	Change Vendor
IBM WVS 6.1	MRCP	N	N	N	N	N	Change Vendor
Loquendo 7.2	MRCP	N	S	P	P	S	
Nuance 8.5	API	N	N	N	N	N	Nuance 9.0 / API
Nuance 9.0	API	N	N	S	P	S	
Nuance 9.0	MRCP	N	N	N	N	N	
Nuance 10.2	API	N	N	N	N	N	
Nuance 10.2	MRCP	N	S	N	N	S	
RealSpeak 4.0	API	N	N	N	N	N	Vocalizer 5.0 / API
RealSpeak 4.5	API	N	N	S	P	N	
RealSpeak 4.5	MRCP	N	N	N	N	N	
Vocalizer 5.0	API	N	N	S	P	S	
Vocalizer 5.0	MRCP	N	N	N	N	N	
Vocalizer 5.7	API	N	N	N	N	N	
Vocalizer 5.7	MRCP	N	S	N	N	S	
Verifier 4.1.x	XML	N	N	S	P	N	
VocalPassword 8.3	XML	N	N	N	N	S	

N = not supported  
S = supported on Avaya-provided servers  
P = supported on customer-supplied servers that pass PVI check

## MPS 4.1 Licensing Support

In MPS 4.1, the Avaya License Service does not support license keys issued for earlier MPS releases. All features are licensed with license keys having the release number 4.1. For example, license server does not accept the 'line 1.0' license key used for the MPS 2.1, MPS 3.0 and MPS 3.5 releases; it accepts only the 'line 4.1' key. The License Server raises an alarm when it reads a license key with a release other than 4.1 from the license key file (\$MPSHOME/PERIplic/etc/plservrc). This applies to license keys for all licensable features, but not to the 'plicd' license key that allows the license server to run. The license server runs with a 'plicd 4.1' key, and also supports 'plicd 2.1', 'plicd 1.3' and earlier-release plicd keys.

Licensing clients on MPS systems that are not release 4.1 cannot get licenses from an MPS 4.1 license server. The MPS 4.1 License Server denies any license request that either does not specify release 4.1, or does not come from an MPS 4.1 licensing client.

MPS 4.1 processes cannot get licenses from License Servers that are not release MPS 4.1. The LSHOST environment variable on an MPS 4.1 system must identify an MPS 4.1 License Server host. If LSHOST identifies an MPS 2.1, 3.0, or MPS 3.5 License Server, the earlier-release License Server grants a license request; however the MPS 4.1 client does not accept the license granted. It does not run with the earlier-release license and it does not refresh the license. The earlier-release License Server reclaims the license when its license refresh timer expires.

In previous MPS releases, the License Server accepted license keys for any release of a product; and it granted a license request for any release number greater than or equal to the release number in the license key. A PERIPRO 1.0 license key, for example, could be read from the license file of an MPS 2.1, MPS 3.0, or MPS 3.5 License Server, and the PERIPRO 1.0 licenses would be added to the available license count. Those licenses could then be granted to satisfy requests for PeriProducer (or MPS Developer) licenses of release 1.0 or greater. In effect, any release of License Server from MPS 2.1, MPS 3.0 or MPS 3.5 could serve licenses to requesting clients from any of those three MPS releases. The changes for MPS 4.1 make licensing exclusive to the MPS 4.1 release.

### **Important:**

Avaya provides MPS 4.1 license keys with new MPS 4.1 systems and with software upgrades to MPS 4.1 from earlier MPS releases. If MPS 4.1 license keys are not delivered with your MPS 4.1 order, contact Avaya support for new license keys.

## MPS Log Utility

The MPS Log utility (mpslog) is a user-interactive command line tool that adapts to the system it's running on to assist in the collection of logging typically required for MPS defect resolution. It supports the configuration and automatic enabling/disabling of the typical logging for the MPS, OSCAR and CCSS components that reside locally on the MPS system on which it runs.

The mpslog utility has an interactive mode and a non-interactive mode. An XML configuration file is created or modified in the interactive mode. The XML file contains the configuration information for both starting logging and later turning off the logging. Non-interactive mode is used only to turn the logging on or off. In non-interactive mode mpslog reads the XML configuration file as input. The file must exist before mpslog is run non-interactively.

The configuration file path and filename are \$MPSHOME/common/etc/mpslog.xml.

### Interactive Mode (mpslog)

The mpslog utility is invoked in interactive mode as shown below.

```
> mpslog [-h] [-d]

-h    displays help, and is optional
-d    turns on debug mode, and is optional
```

After mpslog is invoked the following startup banner is displayed:

```
> mpslog

Logging utilizes CPU and disk space and can affect system performance. It should
be enabled under supervision of Avaya support personnel.
```

The following actions are selectable:

- 1) Create/modify configuration file
- 2) Display configuration file
- 3) Enable logging using configuration file
- 4) Disable logging using configuration file
- 5) Help
- 6) Quit

```
Enter selection (1-6):[2]
```

## Non-Interactive Mode (mpslog)

The mpslog utility is invoked in non-interactive mode as shown below.

```
>mpslog -s on | off [-d]
```

-s specifies silent mode

on | off specifies to turn logging on or off, and is required when -s is used

-d turns on debug mode, and is optional

The -s argument invokes non-interactive mode. If invoked with the 'on' argument, mpslog turns on the logging configured in the XML file. If invoked with the 'off' argument, mpslog turns off the logging configured in the XML file.

For a full description of the MPS Log Utility, consult the *Avaya Media Processing Server Series Command Reference Manual* (NN44100-109).

## Java Support

### Support for Java 6 and Java 7

MPS 3.5 SCE requires Java 6 and does not support Java 7.

The following MPS components can run on Java 6 or Java 7, on both Solaris and Windows:

- MPS Reporter
- MPS Manager
- MPS Web Services
- MPS Java Services Bridge
- MPS CCSS SIP Server

Using MPS Developer with MPS Web Services (the PERIws package) requires the Java 6 or 7 SDK.

On Windows, if Java is not installed or the installed Java release is not at least Java 6, the Windows installer prompts the user for permission to install Java 7.

On Solaris, Java is part of the operating system. If Java is not installed or the installed Java release is not at least Java 6, an administrator must update the Solaris OS patch level. See [Solaris 10 Patch Level Requirements](#).



## CCSS SIP

### SIP DLOG Logging and Configuration

In MPS 4.1, CCSS SIP debug logging is implemented with the MPS Debug Logging (DLOG) libraries. Using DLOG gives SIP debug logs a look and feel similar to the debug logs of other MPS component processes, using the same log entry format, the same output directories, and the same DLOG file naming conventions.

The SIP debug logging is configured in the sip.conf file in the \$CCSSHOME/etc directory. To configure SIP DLOG parameters, create a DLOG configuration block in the [SYSTEM] section of the sip.conf file, as in the following example:

```
DLOG = {  
    dlogFileSize 15000  
  
    dlogMaxBackupFiles 3  
  
    dlogDbgOn FILE,DEB  
  
    dlogDbgOn FILE,trace.detail.1.ALL  
  
    dlogDbgOn FILE,GENERAL  
  
}
```

For a full description of SIP logging parameters that are configurable in the DLOG configuration block, consult the *Avaya Media Processing Server SIP Features Manual* (NN44100-130).

### SIP Trace/Block/Unblock/Reset Command Updates

In the SIP User Interface (sipui) command tool, the trace, block, unblock and reset commands are improved. These actions can now be performed for a single line or several lines or line groups using a single command. All of these commands now use the same arguments for consistency.

For a full description of these SIP commands, consult the *Avaya Media Processing Server SIP Features Manual* (NN44100-130).

## Toolkits

### Discontinued H.323 and Video Server Toolkits

MPS 4.1 does not support the H.323 Protocol or the Video Server Toolkits for MPS Developer. The MPS 4.1 PERItlkt package does not install these toolkits.

## TCAD TMS Trace Using DLOG

TCAD supports the retrieval of TMS trace logging through the TCAD process using the TCAD DLOG logging interface.

New V-shell (VSH) commands are added to TCAD to enable and disable DLOG trace objects which direct TMS general tracing, TMS load tracing and TMS reset tracing through the TCAD process to the DLOG log stream.

For details see the TCAD commands in the *Avaya Media Processing Server Series Command Reference Manual* (NN44100-109).

## PVI Checker

The PVI (Product Vendor Independence) Checker checks a system for software and hardware compatibility with MPS product requirements before you run the MPS installer. This section describes the changes introduced in the PVI Checker tool for MPS 4.1.

### Changes on the Windows Platform

- There is a check to determine if the processor on the server is x86 (32-bit) or x64/AMD64 (64-bit). If the processor is x86 then a warning appears in the PVI report: "This processor is not suitable for Windows 2008 R2 OS".
- Starting with the Avaya MPS 4.1 release, a DVD drive is required for product installation on a Windows platform.
- There is a check for Windows 2003. If the operating system is Windows 2003 then a warning appears in the PVI report: "Recommended OS is Windows 2008 R2. Windows 2003 support from Microsoft may only be available for limited time."
- In the text reporting the number of Ethernet ports found, the phrase "NetworkCard" was changed to "EthernetPort".
- The PVI checker ignores results for the CD drive check, the COM1 port check, and the check for maximum number of processors.

## **Changes on the Solaris Platform**

The PVI Checker for Sun/SPARC server model is updated to correspond with the list of [Supported Sun/SPARC Server Models](#) for MPS 4.1. Some older server models are no longer supported as indicated in the list. The hardware check fails if the server type does not match one of the servers in the updated list.

## **Relational Database (RDB)**

### **Discontinued Support for CORBA in RDB**

In MPS 4.1, the Relational Database (PERIrdp) package does not include support for the CORBA (Common Object Request Broker Architecture) interface. This capability is not carried forward from release MPS 3.5.

## **Host Protocols**

### **Discontinued Support for Brixton LU 6.2 Host Protocol**

In MPS 4.1, the Host Protocols (PERIhostp) package does not include support for the Brixton LU 6.2 host protocol. This capability is not carried forward from release MPS 3.5.

## **Field Factory Tests**

The MPS 4.1 Field Factory Tests are rewritten in Perl.

## Security Enhancements

### PTELNET SSL Support

Host Protocols allow telephony applications to connect to remote hosts using a number of network protocols. The PTELNET process supports a family of telnet-based protocols. In MPS 4.1, host processes use PTELNET to establish two types of connections – VT-100 and TN3270 terminal connections, which are used primarily by mainframes.

The MPS 4.1 HOSTP SSL feature protects network traffic between telnet-based MPS Host processes and remote hosts using the widely-proven cryptography methods implemented in the open-source OpenSSL package.

HOSTP SSL support includes:

- Configuration options for ATTE (Telnet via VT-100) and VPSTN3270 (Telnet 3270) processes to enable SSL.
- Additional configuration for the most commonly used SSL parameters.
- Support for X.509 certificates, and a set of symmetric and asymmetric ciphers and hash-functions.

MPS 4.1 introduces configuration options for SSL into the PERIhostp package. These configuration options enable SSL, configure certificates, and select commonly used SSL parameters. Customers who want to use the SSL-encrypted data connections for their HOSTP terminal applications can configure the SSL parameters on a per connection basis in the `atte.cfg` and `vpstn3270.cfg` files, using the “`sslopt`” configuration command.

New MPS 4.1 installations and MPS 3.x installations upgraded to MPS 4.1 will not take advantage of HOSTP SSL without explicit configuration of this feature. For a full description of the HOSTP SSL configuration parameters, see the *Avaya Media Processing Server Series COMMGR Reference Manual* (NN44100-114).

### HTTP Support for Apache and ZAG Tools

ZAG (Zero Administration Grammar) tools (`znet`, `zagpatch` and `zagperirev`) allow you to apply patches or distribute grammars and other files to multiple AP and Speech Server nodes in an MPS network, and to collect information about the software installed on remote nodes in an MPS network.

In MPS 4.1, the Apache web server supports HTTPS configuration. The ZAG tools have been enhanced to use HTTP/SSL for secure communication between MPS nodes when HTTP/SSL is configured in the Apache `httpd-ssl.conf` file.

The path to the file on Solaris systems is:

`$MPSHOME/PERIdist/apache/conf/extra/`

while on Windows systems, it is:

`%ProgramFiles%\Apache Software Foundation\Apache2.2\conf\extra`

The following parameters in the `httpd-ssl.conf` file enable SSL:

**SSLCertificateFile:**

This parameter is used to identify the filename that contains an MPS AP X.509 certificate in PEM format.

**SSLCertificateKeyFile:**

This option is used to identify the filename that contains a private key in PEM format.

In MPS 4.1, secure operation of ZAG tools using SSL is the default. No additional actions are required to configure ZAG tools for SSL after installation. For a full description of ZAG tools and Apache SSL configuration on MPS, see the *Avaya Media Processing Series System Reference Manual*.

## MPS Manager Secure Sockets Layer (SSL) Support

MPS Manager is the suite of graphical tools which is used for operation, administration, and control of MPS nodes. When the user logs on to MPS Manager, a pallet of tools appears on the tool bar. The MPS Manager tools allow the user to view network activity and to configure and deploy applications.

In MPS 4.1, SSL support has been added to MPS Manager for secure connections between MPS nodes. The following parameters are added to the MPS Manager graphical user interface, under MMDP configuration, to support SSL:

**ssl\_mmdp\_connection:**

This option enables SSL functionality on the MPS Manager Data Provider side.

**ssl\_mmdp\_certificate:**

This option is used to identify the filename that contains an MPS AP X.509 certificate in PEM format.

**ssl\_mmdp\_privatekey:**

This option is used to identify the filename that contains a private key in PEM format.

**ssl\_mmdp\_privatekey\_passfile:**

This option is used to set the filename that contains a private key password in text format.

In MPS 4.1 Manager, secure data collection using SSL is the default. The MMDP configuration options are preset so that no additional actions are required to configure MPS Manager to use SSL. For a full description of MPS Manager SSL configuration, see the *Avaya Media Processing Series Manager Reference Manual* (NN44100-105).

## HTML and VXML SSL Mutual Authentication Support

Mutual Authentication occurs when both client and server authenticate themselves with each other by sending valid configured SSL certificates. Data exchange can start between client and server only after they both successfully authenticate with each other. The MPS 4.1 HTML Resource Daemon and VoiceXML Interpreter support mutual authentication via SSL certificate exchange.

For HTMLS, configure certificates in the \$HTMLSHOME/etc/htmls.conf file on Solaris or the %HTMLSHOME%\etc\htmls.conf file on Windows. Refer to the *Avaya HTML Service Daemon User Guide* (NN44100-107) for information describing how to configure certificates for HTMLS.

For VXML, configure certificates in the \$MPSHOME/PERIvxml/config/SBclient.cfg file on Solaris or the %MPSHOME%\PERIvxml\config\SBclient.cfg file on Windows. Refer to the *Avaya MPS VXML Browser User Guide* (NN44100-27) for information on how to configure certificates for the VXML Interpreter.

## MPS Reporter SSH Support

MPS Reporter is a part the MPS tools suite. It collects and reports statistical data for the MPS network. MPS Reporter provides reports of MPS runtime statistics in a variety of formats through its Graphical User Interface (GUI). MPS release 4.1 introduces SSH protocol support into the PERIprpt package for secure connections when collecting statistics from remote MPS hosts.

Statistic files from remote nodes are collected by the scripts automatically run from 'crontab' on Solaris, or from 'psched' on Windows systems:

- pr\_sys\_v5.plx - collects system statistic from remote nodes
- pr\_app\_v5.plx - collects application-specific statistics

In MPS 4.1 Reporter, secure data collection using SSH is the default. The MPS 4.1 installer configures SSH and starts the Avaya SSH Daemon. Public and private SSH keys are also created during MPS 4.1 installation.

The identities of remote MPS nodes from which MPS Reporter will collect statistics are not known at the time of installation. After installation, you must insert the public SSH key from the MPS Reporter node into the `authorized_keys` file on other MPS node(s) from which MPS Reporter collects statistics. Update the `ssh_config` file on the MPS Reporter node after installation, inserting the hostnames and user names used to connect to remote nodes. If desired, MPS Reporter can be configured to use RSH rather than SSH, as it was used in MPS releases prior to release 4.1.

For more information on MPS Reporter SSH and RSH configuration procedures, see the *Avaya Media Processor Server Reporter User Guide* (NN44100-106). For more information on SSH configuration for Solaris and Windows, see the *Avaya Media Processing Server Series System Reference Manual* (NN44100-100).

## ZAP SSH Configuration

Zero Administration Prompt (ZAP) is an automated multimedia file (MMF) synchronization facility that maintains consistency between activated instances of MMF files on MPS nodes in a network. In MPS 4.1, ZAP, like MPS Reporter, takes advantage of SSH configuration. By default, ZAP uses SSH for secure communication when synchronizing MMF files within the MPS network.

The MPS installer configures SSH and creates public and private SSH keys. You must insert the public SSH key for the MPS node running ZAP into the `authorized_keys` files on each remote node where ZAP will synchronize MMF files, in the same way as described in the [MPS Reporter SSH Support](#) section above.

For more information on ZAP see the *Avaya Media Processing Server Series Command Reference Manual* (NN44100-109). For more information on SSH configuration for Solaris and Windows, see the *Avaya Media Processing Server Series System Reference Manual* (NN44100-100).

## OS Hardening Scripts

MPS 4.1 provides security hardening scripts for Solaris 10, Microsoft Windows 2003, and Windows 2008 R2 Servers. Hardening scripts disable services and ports that are not

required by the MPS platform. Recommended OS security hardening is automatically performed on MPS systems manufactured at Avaya. The scripts are available to harden systems that have undergone changes, including systems that have been upgraded from MPS 3.x to MPS 4.1.

### **Hardening Solaris 10**

MPS Solaris 10 security hardening scripts are available in the `$MPSHOME/common/mpssecure` directory.

To harden a Solaris 10 system, run the `mpssecure10` script with a `tmson` or `tmsoff` argument. For detailed instructions on using MPS Solaris 10 security hardening scripts refer to the `README_mpssecure` file in the scripts directory. The hardening measures can be backed out by running the `backout_mpssecure` script.

### **Hardening Microsoft Windows**

MPS Windows 2003 security hardening scripts are available in the `%MPSHOME%\common\mpssecure\windows2003` directory.

MPS Windows 2008 R2 security hardening scripts are available in the `%MPSHOME%\common\mpssecure\windows2008` directory.

To harden a Windows 2003 system, run the `mpssecure2003` script with a `tmson` or `tmsoff` argument. To harden a Windows 2008 R2 system, run the `mpssecure2008` script. For detailed instructions on using MPS Windows security hardening scripts refer to the `README_mpssecure.txt` file in the scripts directory. Follow instructions in the `backout_mpssecure.txt` file to back out some or all of the security hardening measures.

For the most recent and up-to-date information on MPS security requirements refer to the *Avaya MPS 4.1 Security White Paper*.



## Known Issues

### Nuance 10 MRCPv1 Issues

#### 1) The `secure_context` option is not supported

The MRCPv1 `secure_context` option is not supported. Sensitive data will not be suppressed in the Nuance 10 logs.

#### 2) The call log base directory must be writable to the nuance user

The `server.callLog.baseDirectory` parameter is not settable in `NSSserver.cfg` on Linux if the owner of the directory is not nuance.

Workaround:

Make sure the nuance user has permission to write into the folder. For example, if `server.callLog.baseDirectory` is set to `$(NSSVRSDK)/logs` in `NSSserver.cfg`, run the following commands so that user nuance has permission to write to the folder.

```
cd $NSSVRSDK
chown nuance:nuance logs
chmod 775 logs
```

#### 3) Log path settings don't work because of permissions

The following settings in `logging-config.xml` don't work (on Linux):

```
<logging_base_path>$NSSVRSDK/data</logging_base_path>
<default_company_name>Avaya</default_company_name>
<default_application_name>MyAppTest</default_application_name>
```

Instead of the application logging going to the following directory:

```
$NSSVRSDK/data/callLogs/master/Avaya/MyAppTest
```

all logs go to the following directory:

```
$NUANCE_DATA_DIR/Nuance/callLogs/MyAppTest
```

### Workaround

Locate the 'data' directory and use `chown` and `chmod` commands to ensure that the 'data' directory under `$NSSVRSDK` is owned by nuance and has a mode of 775.

#### 4) Debug warning messages in the console

When running a under a heavy load, there are lots of messages (shown below) printing on the console window.

```
20120926120235787| 3969182576| 0|| ** WARNING **| -1| SWI_FAIL| non-error failure|
RecognizerClient::AccumulateStats | protocol latency : 65623639.515 ms n=16630000
20120926120258658| 3971824496| 0|| ** WARNING **| -1| SWI_FAIL| non-error failure|
RecognizerClient::AccumulateStats | protocol latency : 65606077.141 ms n=16640000
```

#### Workaround

Change the following in \$SWISRSDK/config/SpeechWorks.cfg:

DiagOutputStreamTypes=debug,file

to:

DiagOutputStreamTypes=file

### MPS Developer Web Services Issues

#### 1) Error Compiling Java Stubs

Axis2 can generate large sized Java code (tens of megabytes). But in this case the Java compiler can sometimes fail because of insufficient memory allocation to javac:

```
[javac] The system is out of resources.
[javac] Consult the following stack trace for details.
[javac] java.lang.OutOfMemoryError: Java heap space
[javac]   at com.sun.tools.javac.util.Position$LineMapImpl.build(Position.java:139)
[javac]   at com.sun.tools.javac.util.Position.makeLineMap(Position.java:63)
[javac]   at com.sun.tools.javac.parser.Scanner.getLineMap(Scanner.java:1105)
[javac]   at com.sun.tools.javac.main.JavaCompiler.parse(JavaCompiler.java:512)
[javac]   at com.sun.tools.javac.main.JavaCompiler.parse(JavaCompiler.java:550)
[javac]   at com.sun.tools.javac.main.JavaCompiler.parseFiles(JavaCompiler.java:801)
[javac]   at com.sun.tools.javac.main.JavaCompiler.compile(JavaCompiler.java:727)
[javac]   at com.sun.tools.javac.main.Main.compile(Main.java:353)
[javac]   at com.sun.tools.javac.main.Main.compile(Main.java:279)
[javac]   at com.sun.tools.javac.main.Main.compile(Main.java:270)
[javac]   at com.sun.tools.javac.Main.compile(Main.java:69)
[javac]   at com.sun.tools.javac.Main.main(Main.java:54)
```

Workaround:

To resolve this issue, the build.xml file should be modified to adjust memory allocated for the javac process.

## 2) AVS Parameter Empty in the 'Web Service Operation' Block

Apache Axis2 throws the following exception if the Input AVS parameter is empty in the 'Web Service Operation' block in an MPS Developer application.

```
org.apache.axis2.AxisFault: org.apache.axis2.databinding.ADBException: Unexpected
subelement GetVersionReturn
```

```
    at org.apache.axis2.AxisFault.makeFault(AxisFault.java:430)
    at verifier.S3Stub.fromOM(S3Stub.java:5496)
    at verifier.S3Stub.GetVersion(S3Stub.java:2868)
    at sun.reflect.NativeMethodAccessorImpl.invoke0(Native Method)
```

### Workaround

Fix the application to provide the missing parameter.

## VXML Application Lines Limitation

A maximum of 128 lines can simultaneously run VXML applications that have both Text-To-Speech (TTS) and Internet Audio Server (IAS) prompts within the same form/block.

### Example

```
<form id="IAS_TTS_Together">
    <prompt><audio src="INVALID_NUMBER_RE-ENTER.wav"/></prompt>
    <prompt> Recognition Boolean Successful </prompt>
</form>
```

Running an application with this resource usage on more than 128 lines simultaneously can introduce unexpected failures to fetch and play prompt and wav files.

Suggested Solutions:

- 1) Ensure that TTS and IAS prompts are played using separate forms for Text-to-speech and Internet Audio Server resources. In the SBclient.cfg configuration file, configure the resource hold value to "0" (Allocating a resource only on forms where it's required, and freeing the resource when the form is ended).

2) Use Text-To-Speech resources for playing the Text-To-Speech prompts and use MPS platform for playing wav files natively. The MPS platform can be configured to play wav file natively without any application modification. Please refer to the *Media Processing Server WAV File Support Without IAS User Guide*.

Avaya recommends Solution # 2 because it does not require any special application logic.

### **Invalid SIP Trace/Block/Unblock/Reset Commands Ignored**

If the line or group value argument given when entering a Trace, Block, Unblock, or Reset command in SIPUI is outside the allowable range, the command is ignored.

#### **Example**

If the available line range is 1-30 and the following command is entered at the SIP User Interface (sipui) terminal:

```
trace 1 1 480
```

the command is ignored by the system without any message. There is no workaround, except to enter a line or group number within the configured range.

## Contact information

To report issues with Avaya Media Processing Server, contact 1-800-242-2121 or go to <http://support.avaya.com>.